BERTL Recommended

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Canon imageRUNNER 2010F

20ppm Copy - Print - Fax - Network Scanner

PROS

- Flatbed glass copy platen and an optional 50-page automatic document feeder provides maximum flexibility in the documents that can be faxed or copied.
- Internal finisher option.
- Good image quality.
- Flexible network scanning functionality.
- Well designed, user friendly printer driver.
- Fast processing of simple word processing work.
- Second fax line upgrade option.
- Well designed web based network utility.

CONS

- No duplex printing option.
- Entry of email/FTP. addresses difficult from the copier control panel.
- No ability to access stored print jobs from copier control panel.
- No color scan capability.
- Low maximum paper supply.
- Low printer standard RAM.
- Finishing options limited to 15 sheet corner stapling.

Product Overview

The Canon imageRUNNER 2010F comes with copy and fax functionality within the entry level price. The device has an advertised 20ppm print engine and comes with two 250 sheet paper drawers and a 100 sheet bypass. The paper capacity can be increased to a maximum of 1,100 sheets via two additional 250 sheet drawers.

An internal finisher can be added, providing corner sheet stapling to users without increasing the device footprint.

A network printing/scanning upgrade can be purchased. The network printing function is driven by a 200Mhz controller, with 8MB of RAM as standard, upgradeable to 72MB. An optional 10GB hard drive can also be added for added job storage and spooling.

The Canon imageRUNNER 2010F's network scanning feature includes the capability to send hard copy documents directly to email, I-Fax, and FTP locations.

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Product Dynamics

According to Canon, the imageRUNNER 2010F is designed to cater to the needs of a small business/busy workgroup by delivering high quality output and good productivity at a reasonable price. The Canon imageRUNNER 2010F comes with copy and fax functionality within its entry price, with network printing/ scanning available as an optional upgrade purchase.

The Canon imageRUNNER 2010F faces competition from several types of office devices:

1. High end fax-based devices
2. Low end copier-based devices
3. Printer based-MFP devices

A few years ago a 20ppm copier would not have competition from a fax device, because up until recently, faxes had slow print engines which made copying and print functions slow and laborious.

However, the fax industry is reacting to the slowdown in sales of traditional fax devices by increasing the overall functionality and productivity of their devices.

For example, a buyer can now purchase a 'fax' which is advertised as being able to copy and print at 23ppm up to 1200dpi, includes a 75 sheet automatic document feeder, and offers scan to email in color for less than the price of the Canon imageRUNNER 2010F. Formidable yes, but not unbeatable. Canon can claim finishing options, 11" x 17" support and platen scanning, features that the fax-based alternative cannot match.

The Canon imageRUNNER 2010F fares well when compared to 18-22ppm copier-based units. While the Canon imageRUNNER 2010F does not offer duplex printing, it stacks up well in terms of functionality against other copier-based units and can offer significant saving opportunities for buyers.

The printer-based multifunctional units that compete against the Canon imageRUNNER 2010F are aggressively priced, often advertising faster print engines and higher specifications at a lower price.

While Canon may struggle to match the low hardware costs of a printer-based unit, it offers the potential for considerable savings in terms of running costs. Canon's separate toner and drum units mean that every component is used to its maximum yield. Printer based units, on the other hand commonly use all in one cartridges, which include the drum, developer and toner all in a single cartridge.

While the printer-based all in one cartridge may offer easy maintenance for the user, it also means that when the toner runs out, the entire cartridge is thrown away. The drum (the expensive piece of the unit) may have thousands of pages of life left in it, which never get used.

Printer manufacturers advertise cost per page based on a low 5% cover. As cover goes up, toner runs out sooner and the cost of the drum is spread over a lower number of pages, resulting in higher running costs.

BERTL analyst testing Canon imageRUNNER 2010F

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Product Dynamics

Some aspects of the Canon imageRUNNER 2010F follow the 'house style' of Canon's 22-33ppm imageRUNNER.

For example, both have an internal paper output area which saves on floor space; this design similarity continues into the finishing options, where Canon offers the device with an inner 2 way tray that can separate copy and print documents between a 100 sheet top tray and 250 sheet bottom tray.

For users who want more advanced finishing there is the optional internal finisher, which sits inside the body of the Canon imageRUNNER 2010F. It can catch up to 300 sheets or 30 document sets, while providing single position (top corner) stapling for up to 15 sheets at a time.

One of the main advantages of the Canon imageRUNNER 2010F is its copy memories.

On most competing 'small office' devices, while you may be able to scan one copy job into the print queue, you would then have to wait in line until the copy memory becomes free (after its prior print jobs had finished and the copy already stored in the machine had printed). This could leave your copy job several levels back in a print queue or result in more than one trip to the copier to get your copy jobs processed.

Canon's unlimited next job copy reservation memories may prove useful when print jobs are arriving at the device from the network.

Canon imageRUNNER 2010F's internal finisher

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Product Dynamics

The Canon imagerRUNNER 2010F's control panel is well laid out, with clearly marked buttons/options spaced across the front of the device. Overall, our testers found the device simpler to use than several competing 18-20ppm devices.

BERTL's overall opinion is that Canon's imageRUNNER 2010F could easily be used by untrained operators, even on their first time, using the device.

Because the Canon imageRUNNER 2010F is targeted as a budget priced small workgroup device, it does not support a booklet maker.

Another feature not supported on the Canon imageRUNNER 2010F is duplex printing. While this could be considered limiting, many competing devices do not offer duplex either.

Image Quality: True resolution is 600 x 600dpi, which rises to 1,200 x 600dpi (copy) and 2,400 x 600dpi (print) via interpolation. The Canon imageRUNNER 2010F delivered high image quality on virtually all types or originals.

The only minor exception to this was when copying screen printed originals, where some screen clash/moiré (checkering patterns in the image) was noticeable.

Design: The Canon imageRUNNER 2010F is built like a photocopier. This means that instead of having user replaceable toner cartridges which contain both the photoconductor and toner, you have an engineer-replaced photoconductor and user changeable bulk toner.

Paper Supplies : The Canon imageRUNNER 2010F comes with:

- Two universal sized 250-sheet paper drawers, which hold from statement/A5 up to ledger/A3 paper;
- A 100 sheet bypass;
- Users can add a further two universal 250-sheet paper drawers to give a total of four drawers and paper input up to 1,000 sheets (not counting bypass).

Canon imageRUNNER 2010F control panel

While this is one of the lower specified devices for its sector, four paper sources is probably adequate for most environments using this type of device. Four paper trays provides flexibility because it lets you have multiple types of paper available.

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Scan

Canon offers an upgrade path that includes network scanning. To access this feature, the buyer must first purchase the optional printer upgrade kit and network interface card.

Once installed, users can send hard copy documents to:

1. Email addresses (in PDF or TIFF format)
2. I-Fax devices (in TIFF format)
3. FTP servers (in PDF or TIFF format)

All three delivery options are accessed the same way. Users or administrators set up the delivery details and save them as a one touch / quick dial selection. This can be done either from the copy control panel or via Canon's Remote User Interface (RUI) desktop web based utility.

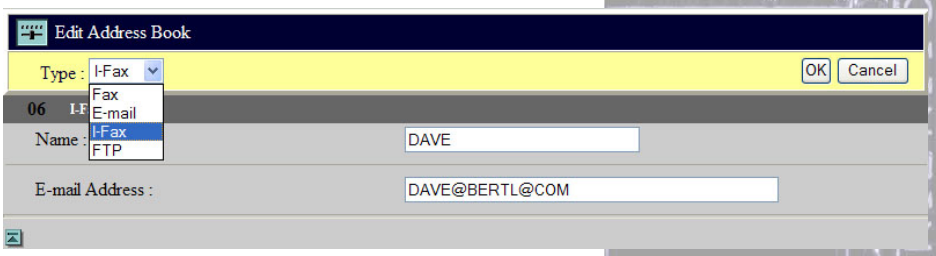
We found the entry of details via the Canon control panel difficult to master and preferred to add addresses via the desktop using RUI.

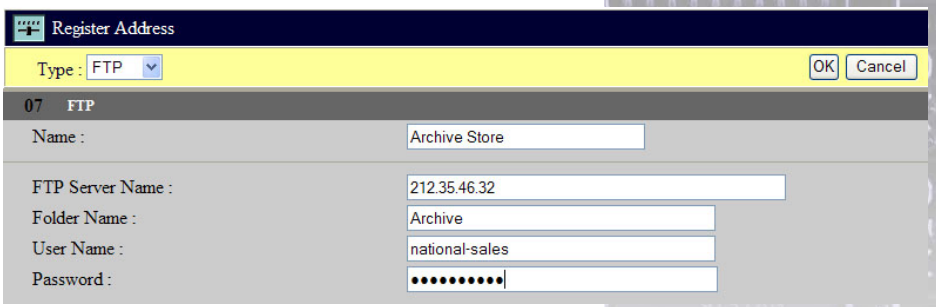
Once set up, sending a document to the email address, I-Fax number or FTP location was easy. We entered the fax mode, and selected the one touch / quick dial. Document scanning options could be edited from the control panel. We could alter density settings, text, text/photo or photo mode, and resolution type (Standard, Fine, Superfine).

Scan to email delivery included a standard subject line and message. This could be edited by the user within the setup function of the device, but not on an 'ad hoc' basis every time we sent a message. We could also choose to send the message with sender details, which allows the recipient to reply to the email with the message going directly to the sender's desktop email address, rather than going to the device itself.

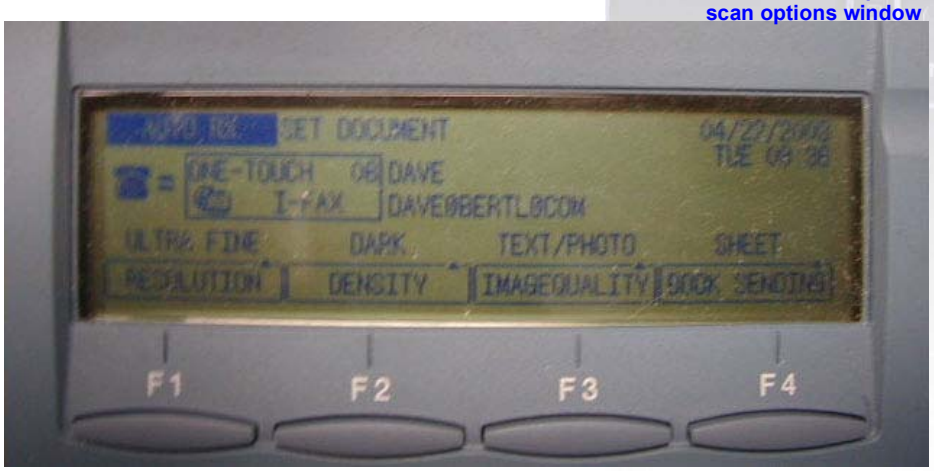
We could also set up the Canon imageRUNNER 2010F to receive and print emails from both SMTP and POP3 addresses. Received emails could also be forwarded to an additional email or archiving location, allowing users to view messages with attachments that the Canon imageRUNNER 2010F can not handle.

Editing delivery functions using Canon's RUI





Canon control panel scan options window



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Copy / Fax

Productivity: The Canon imageRUNNER 2010F did not deliver the fastest first page out time which tended to impact the speed on the 5 page, single set copy job. In its defense, Canon stated that advertised specifications are 'first page out at 8.3 seconds based on a standard configuration with no finisher. The finisher is an optional feature which provides some differences in first copy output timing.' We remind readers that our time is from the document feeder, and Canon's may be from the copy glass.

Once the Canon imageRUNNER 2010F got going, the speed improved and copy speeds were considered reasonable (especially on 5 sets of a five page job).

Finishing: The Canon imageRUNNER 2010F showed a slight slowdown when finishing was added. The 5 sets of a 5 page single sided document slowed down by just over 1 second per set when single corner stapling was added.

The Canon imageRUNNER 2010F's finisher is one of its differentiating features. 'Fax-centric' competitors do not offer finishing options. The same can be said for copier-based workgroup devices below 20ppm.

While some printer based units offer finishing, it often has a greater effect on productivity.

For example, while the Canon imageRUNNER 2010F's finisher only added 1 second to a stapled job, a printer-based competitor carrying out the same job added over 6 seconds per set, reducing overall productivity by 40%.

Copy Productivity Results

	Time to complete job	Speed in CPM
First Page Out (platen glass)	13.43 seconds	
First Page Out (document feeder)	20.70 seconds	
1 set of 5 single sided to single sided	30.20 seconds	9.93 CPM
3 sets of 5 single sided to single sided	58.46 seconds	15.39 CPM
5 sets of 5 single sided to single sided	86.72 seconds	17.29 CPM
5 sets of 5 single sided to single sided with single corner staple	92.01 seconds	16.30 CPM

Fax Functionality: This comes as standard on the Canon imageRUNNER 2010F. Its fax function includes a 33,600bps modem, MMR, MR, MH and JBIG compression, 16MB of total memory as standard (which is shared with other functions) and a maximum memory upgrade to 80MB. The Canon imageRUNNER 2010F also has the ability to fax ledger/A3 documents, a capability that most fax-centric devices do not possess.

The Canon imageRUNNER 2010F includes 63 one touch dialing buttons, plus an additional 137 programmable locations. These 200 total locations are also shared with the storage of email addresses and FTP destinations for the network scanning function.

The fax function of the Canon imageRUNNER 2010F can be further expanded with an extra 33,600 bps second fax line option. This means that users can send and receive faxes at the same time using a single device.

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Print

Compared to rival copier MFPs, the Canon imageRUNNER 2010F has one of the higher grade processors at 200Mhz. While processing power may be high, the printer's standard RAM starts at a low 8MB and only rises to 72MB via optional upgrades.

In contrast, some copier MFPs have higher standard and/or maximum RAM, while a number of laser printer-based MFPs go as high as 272MB print RAM.

In its favor, the Canon imageRUNNER 2010F supports an optional 10GB hard drive which converts it into a self-contained print server.

Printer Productivity: On our Microsoft Word, 35 page test, the Canon imageRUNNER 2010F ran at 19.09ppm, i.e very close to its full advertised 20ppm print speed (time includes processing / RIPing job).

Network Bandwidth: The network bandwidth/ MB used by the Canon imageRUNNER 2010F was mid-range**,** being neither the best recorded nor the worst.

Printer Drivers: Printing is an optional extra requiring the purchase of the Printer Board Kit. Once purchased you get PCL5e and PCL6 Standard, but must buy the PostScript 3 module if needed.

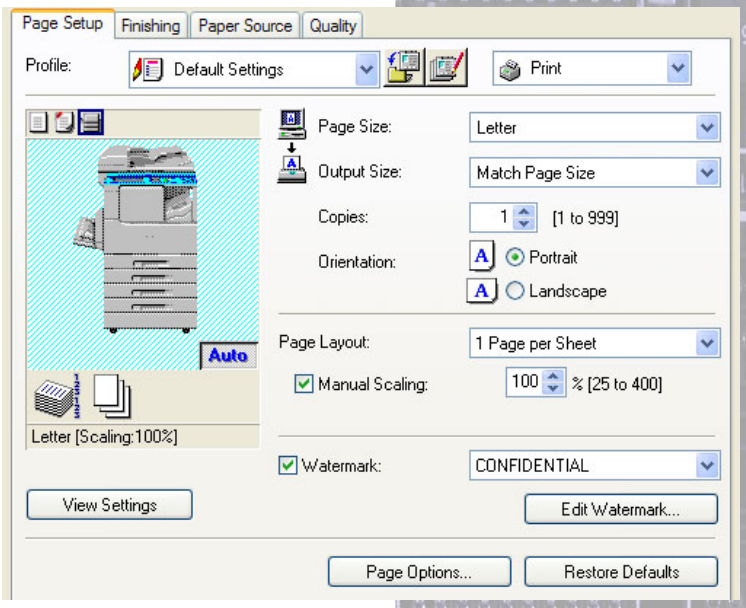
As our illustrations show, the Canon imageRUNNER 2010F's printer driver was as functional as those of Canon's larger copier MFPs. Canon users also have the benefit of similarity across the drivers from one Canon print engine to another.

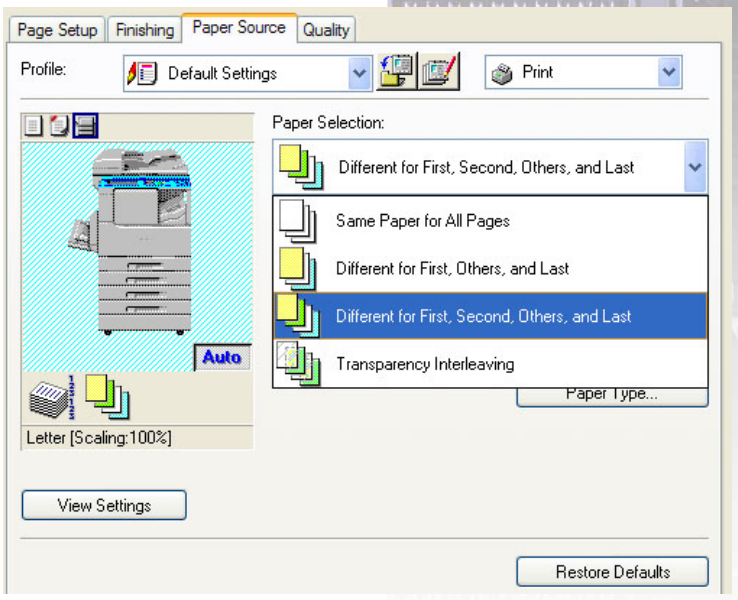
The printer driver was simple to follow and, as the image bottom right shows, the Canon imageRUNNER 2010F lets you select the paper source for several pre-defined document settings.

We could select to have different paper used for the first page, second page, main body of document and back page/cover.

We were also able to select which paper drawer to print from, for each of the settings.

This gave a reasonable amount of flexibility in document production**.**





Canon imageRUNNER 2010F printer driver screenshots

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Print

From the printer driver we could choose between a range of delivery options. Secure Print, Store, and Store and Print are only available with the purchase of the optional printer hard drive.

Secured Print: This allows jobs to be stored with a PIN. The job is released into the print queue using the copy control panel or Canon's browser based Remote User Interface (RUI) software after the PIN number has been entered.

Store: This allows users to store jobs in an electronic mailbox. Jobs are released into the print queue using Canon's RUI.

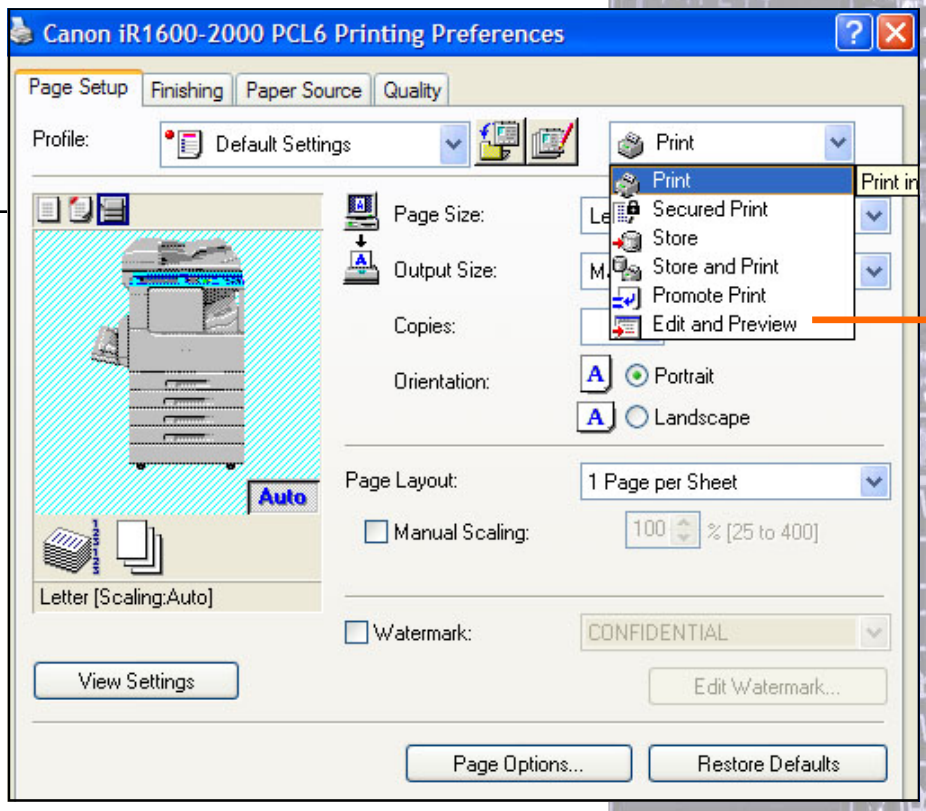
Store and Print: This is the same as the Store function but also prints out a set of the print job at the same time.

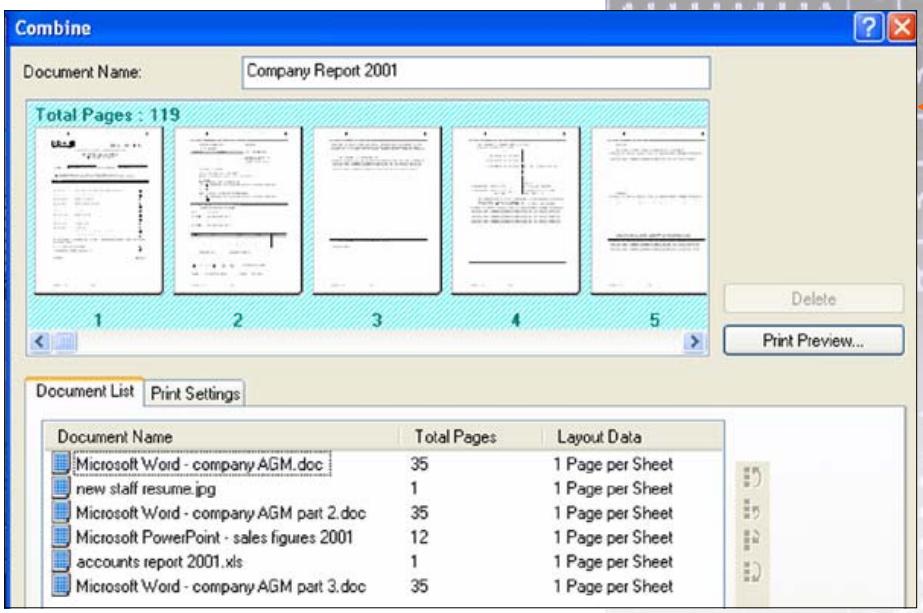
Promote Print: This moves the print job to the front of the queue and removes finishing options.

Edit and Preview: This allows users to combine multiple print jobs into a single file ready for printing. This is a useful function when users need to combine documents created in multiple applications. An example of how 'Edit and Preview' can be used is illustrated opposite. In this instance we have merged 3 different Word documents, a JPEG image, a PowerPoint presentation and an Excel spreadsheet into a single document. We can now print multiple copies of the merged document, which will be ready to bind.

Without Edit and Preview, we would have had to print each job multiple times and manually collate the entire document after printing.

Note: Unlike most Canon digital copier devices, the imageRUNNER 2010F does not allow users to release jobs stored on the printer hard drive from the copier control panel.





This makes the function less beneficial for the average office user, who will probably just resend the job to print from the desktop rather than go through the process of browsing to the device and resubmitting the job using the RUI utility.

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Network Management

Canon includes a highly functional network management system within its browser based utility called Remote User Interface (RUI)

RUI has two levels of access: End User, and Administrator.

The administrator level includes extra capabilities, including the ability to change device settings from the desktop, as illustrated opposite. The administrator can also download new levels of firmware to the device, new address books, etc. without having to leave the desk.

End user mode is divided into 5 sections:

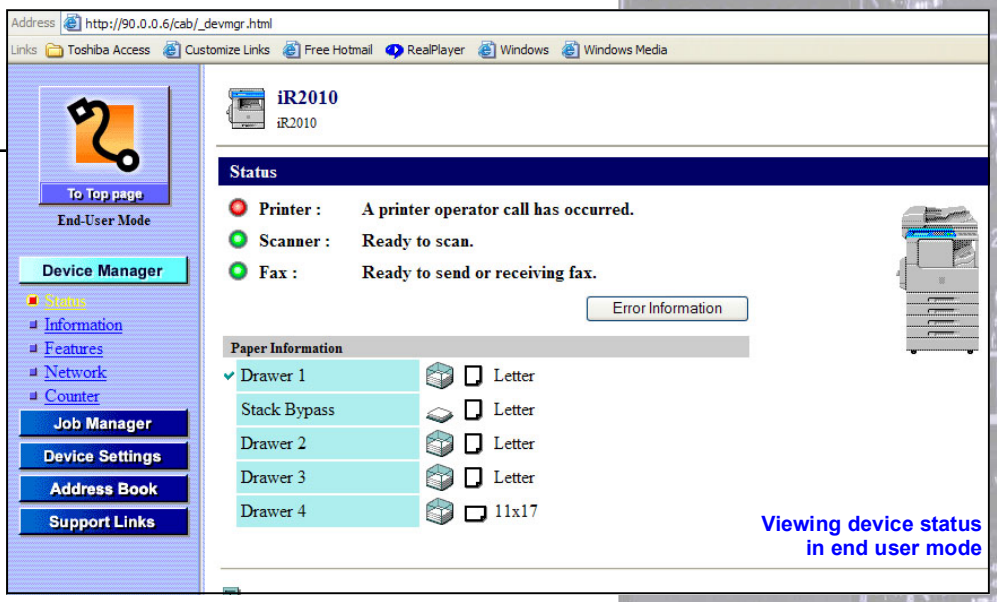
Device Manager: Allows users to view the status of the device including paper levels.

Job Manager: Allows the user to view jobs already printed and access jobs stored on the optional hard drive.

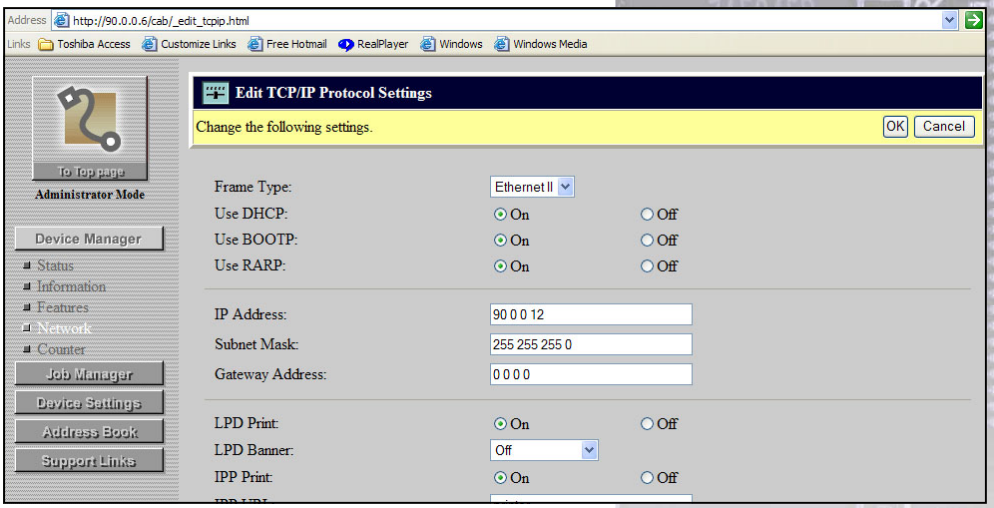
Device Settings: Allows user to view network and communication settings of the device.

Address Book: Allows users to view, edit and create new one touch/quick dial fax numbers, email and I-Fax addresses and FTP destinations for the walk up scanner function. Users can also import and export the address book. Having set up the address book on one device in one workgroup, the IT manager could export the address book and download it to further devices if required. This also allows the IT manager to make a backup of the address book should the device need replacing, avoiding the need to re-enter the entire address book again.

Support Links: Provides hyperlinks to Canon's website.



Viewing device status in end user mode



Changing network settings in Administrator mode

In summary: We see the Canon imageRUNNER 2010F as a good all-purpose dveice for either the home office or the small workgroup looking to access copy, print, fax and network scanning while maintaining a small footprint.

The Canon imageRUNNER 2010F competes in a market sector being aggressively targeted by fax, print and copy manufacturers. We feel the Canon may do well, offering finishing options outside the scope of faxcentric devices, running cost advantages versus printer based units and hardware cost-saving benefits versus 20ppm+ workgroup copier based units.

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